another parasite of the same or allied genera (Saxena 1971) were also recorded. *Viscum capitellatum*, parasitic on *D. falcata* was in turn parasitic on other species of plants.

The economically valuable tree species such as Albizzia lebbeck, Anacardium occidentale, Artocarpus heterophyllus, Bombax ceiba, Cassia siamea, Casuarina litorea, Dalbergia sissoo, Ficus religiosa, Manilkara hexandra, Mangifera indica, Pithecellobium dulce, Salvadora persica, Syzygium cumini, Tectona grandis, Terminalia catappa, Thespesia populnea are severely affected by the parasite D. falcata, with many trees in and around this district being heavily infected.

The parasite is a prolific producer of fruits, avidly devoured by some species of frugivorous birds that disperse the seeds of *D. falcata*.

No effective control measures are presently available. Diesel or powerine oil (30-50%) is sprayed on *D. falcata* to reduce its growth (Singh 1963). Its spread in Thanjavur forests will be disastrous considering the wildlife wealth.

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new hosts of D. falcata Ettings, its relation with host,

the anatomy of its seedlings and mature haustorium.

### May 29, 1991

Soc. 68: 502.

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# 36. VETIVERIA LAWSONI (HOOK. F.) BLATTER & MCCANN AND POTAMOGETON CRISPUS L. — ADDITIONS TO THE FLORA OF ANDHRA PRADESH

During the course of intensive plant exploration in Nizamabad district of Andhra Pradesh, we collected two uncommon taxa. These taxa were indentified as *Vetiveria lawsoni* (Hook. f.) Blatter & McCann (family Poaceae) and *Potamogeton crispus* L. (family Potamogetonaceae). The former taxon has so far been reported from Maharashtra, Karnataka and Tamilnadu (Blatter and McCann 1935, Fischer 1934) and the latter taxon was reported for the first time by Mathew (1982) from Tamilnadu as a new record for south India. Hence the present report of the occurrence of these taxa in Nizamabad district is interesting from the phytogeographical point of view and extends their distribution to Andhra Pradesh in south India.

Vetiveria lawsoni (Hook. f.) Blatter & McCann in J. Bombay nat. Hist. Soc. 32: 409. 1928; C. Fischer, Fl. Pres. Madras 3: 1201. 1957; Bor, Grass. Bur. Ceyl. Ind. Pak. 208. 1960. Andropogon lawsoni Hook. f., Fl. Brit. India 7: 187. 1896.

Perennial; root stock horizontal; culms to 1.2 m long, nodes distant. Leaves chiefly radical, 7-20 x

0.3-0.6 cm, rigid, subglabrous, apex acute-obtuse, margins ciliate; sheaths striate, to 12 cm. Inflorescence of 15-22 cm long panicle; racemes whorled. Sessile spikelets lanceolate, to 4 mm long, callus with silky hairs, upper glume awned, keel pectinately ciliate; lemma ciliate, obtusely 2-dentate. Pedicelled spikelets male, lanceolate, to 5 mm long, callus naked; stamens 3. Grains oblong, slightly oblique at top.

Flowering and fruiting: August - March.

Distribution: Nizamabad: Common in sandy localities throughout the district. INDIA: Maharashtra, Karanataka, Tamil Nadu.

Specimens examined: Chanapur, BR 7112; Jalalpur RF, BR 9564.

This taxon can be easily distinguished from the common species of *Vetiveria*, *V. zizanioides* (L.) Nash in having horizontal rootstock, leaves and panicles not exceeding 20 cm in length.

Potamgeton crispus L., Sp. Pl. 126. 1753; Hook. f., Fl. Brit. India 6: 566. 1983; Cooke in Fl. Pres. Bombay 350. 1908; Burkill, Rec. Bot. Surv. India 4: 136. 1910; Mathew, Fl. Tam. Carn. 1715. 1982.

Perennial rhizomatous submerged herb; stem branched, compressed. Leaves linear or oblong-elliptic, 2-6 x 0.4-1 cm, membranous, translucent, 3-nerved, glabrous, base amplexicaul, apex rounded, margin crisped and serrulate; sessile; stipules to 4 mm, caducous. Flowers in 0.5-2 cm long spikes, dull-white ; peduncle to 5 cm long. Perianth lobes 4, clawed; stamens 4, ovaries 4, superior. Drupelets orbicular, to 0.2 cm. ridged, beaked, 1-seeded.

> Flowering and fruiting: September - February. Distribution: Nizamabad: rare in tanks. INDIA:

BLATTER, E. & MCCANN, C. (1935): The Bombay Grasses. Delhi.

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Plains of India and temperate Himalaya (Cooke 1908).

## Specimens examined: Belal tank, BR 7269.

This taxon is not mentioned in Fl. Pres. Madras. Mathew (1982) reported it as a new record, south of Madhya Pradesh (Central India).

We are grateful to Dr. P.V. Sreekumar, BSI, Coimbatore for his help in identification. Financial assistance from UGC is gratefully acknowledged.

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## 37. INDIAN DOUM PALM HYPHAENE DICHOTOMA IN KHANDESH — AN UNUSUAL OCCURRENCE

REFERENCES

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Doum palms are the only angiospermous taxa which show true dichotomous branching. The occurrence of the Indian doum palm Hyphaene dichotoma (Wt.) Furtado, was recorded from a few places on the west coast of India. Botanists have (Mahabale studied the morphology and Chennaveeraiah 1957), nature of branching (Greguss 1968), inflorescence (Rao and Korlahalli 1969, Bonde 1987), nutritional composition of fruit (Bonde et al. 1990) and distribution (Rao 1963, 1964; Meher-Homji 1970). According to Rao (1963), it is endemic to Diu, Daman, coast of Gujarat and north Maharashtra. While reporting this taxon, along the west coast of India, he cited a couple of localities (viz. Nagaon, Shirgaon) from Maharashtra in its distribution. These localities, however, clearly fall under coastal area. The present note records the new distribution, i.e. occurrence of H. dichotoma in West Khandesh, Dhule district, Maharashtra, in an area where the vegetation is predominantly dry scrub. So far, the present locality is the only non-coastal area for this species for the whole of Maharashtra. A

couple of old plants and few seedlings grow in dry land near a small village, Methi, in Dhule district.

The entry of the west coast endemic palm to the present locality in West Khandesh which is very far from the former locality is curious. It, however, indicates the discontinuous distribution of the taxon. Discussion with locals indicates that a couple of plants may have been introduced to this locality about 30 years ago. Nevertheless, the present occurrence of this taxon is certainly unusual. The newly growing seedlings support the success of this species in the present locality.

Existing literature shows that the taxon is threatened in many of its natural habitats and facing extinction (Oza 1974, Rao 1963) and it has been included in the list of Threatened Plants of India (Jain and Sastry 1980, 1983). Its occurrence in Khandesh, however, indicates the possibility of extending its distribution. This endangered palm in Khandesh needs immediate protection and multiplication. The locality has been recommended to the Maharashtra

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